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To: [JETT Steven](#)
Cc: [Eric Blischke/R10/USEPA/US@EPA](#)
Subject: FW: GIS Analysis
Date: 03/10/2009 09:06 AM

Steven,
If you have any suggestions or concerns, please reply or stop by to discuss. Thanks.
Jim

-----Original Message-----

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Sent: Monday, March 09, 2009 4:36 PM
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Subject: GIS Analysis

On February 27, 2009, we received a summary of the February 17, 2009 GIS meeting and some action items. We need to get back to the LWG on what modifications we would like to see to the GIS tool. Below is my proposal for discussion at this week's TCT:

- 1) The LWG will look at the site at the intermediate scale in addition to the site wide scale. The site will be looked at on a river mile basis (bank to bank) and on a river mile basis for near shore areas on each side of the river. This will result in three intermediate scale evaluations for each river mile in addition to the site wide basis.
- 2) The project team has expressed an interest in evaluating the subsurface data. During the meeting, Ben Shorr from NOAA suggested a "2.5 D" approach in which we would develop layers at various depth intervals. We will pursue this either with the LWG or independently based on timing and schedule considerations. The subsurface sediment layer approach includes the following steps:

The LWG will create a query with all subsurface sediment samples and the top/bottom depth of the subsurface sediment interval
Depth-weighted averaging - splitting the sample into depth layers can be accomplished either manually or using software. Software can be downloaded from EPA's FIELDS site:
<http://epa.instepsoftware.com/fields/>
Develop decision criteria for the subsurface sample data - e.g., number of layers, averaging rules, assigning intervals to a given layer, etc. I recommend 60 or 90 cm intervals, averaging all samples within a given interval, assigning intervals based on the interval in which the majority of the sediment core resides (if it is equally split, assign to lower interval), and eliminating cores that straddle two or more intervals.
Perform the Interpolation step according to the same procedures used for the surface data (i.e., natural neighbors).
We will run these analyses with the LWG GIS tool or the FIELDS remedial tool to evaluate both surface and subsurface layers against PRGs.

Thanks, Eric